

ABSTRACT

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The present invention relates to ~~therapeutic and diagnostic methods~~ ^{for detection of malignancy or nervous system disorders} and compositions ~~based on Notch proteins and nucleic acids. The invention~~ ^{based} ~~provides for treatment of disorders of cell fate or differentiation by administration~~ ^{on the level of Notch proteins or nucleic acids.} of a therapeutic compound of the invention. Such therapeutic compounds (termed

5 ~~herein "Therapeutics") include Notch proteins and analogs and derivatives~~ ~~(including fragments) thereof, antibodies thereto, nucleic acids encoding the~~ ~~Notch proteins, analogs, or derivatives, Notch antisense nucleic acids, as well as~~ ~~topolythmic proteins and derivatives which bind to or otherwise interact with~~ ~~Notch proteins and their encoding nucleic acids and antibodies. In a preferred~~

10 ~~embodiment, a Therapeutic of the invention is administered to treat a cancerous~~ ~~condition, or to prevent progression from a pre-neoplastic or non-malignant state~~ ~~into a neoplastic or a malignant state. In other embodiments, a Therapeutic is~~ ~~administered to treat a nervous system disorder or to promote tissue regeneration~~ ~~and repair. In one embodiment, Therapeutics which antagonize, or inhibit, Notch~~

15 ~~function (hereinafter "Antagonist Therapeutics") are administered for therapeutic~~ ~~effect. In another embodiment, Therapeutics which promote Notch function~~ ~~(hereinafter "Agonist Therapeutics") are administered for therapeutic effect.~~ ^{Therapeutic} ~~Diagnostic~~ methods and methods of inhibiting Notch expression are also provided.

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